

Embodiment	Key Type	Identity Element	TA Element	Session Element	General Form
First	Encryption "Enc"	Q_{IDi} Public	R_{TAi} Public	r Private	$\prod (R_{TAi}^r Q_{IDi})$
	Decryption "Dec"	Q_{IDi} in S_i	S_i Private s_i in S_i	U Public	$t(U, \sum b_i S_i)$
Second	Encryption "gID"	Q_{IDi} Public	P_{pubi} Public	σ Private	$\Pi \hat{e}(Q_{IDi}, P_{pubi})$
	Decryption "x"	Q_{IDi} in d_{IDi}	d_{IDi} Private s_i in d_{IDi}	U Public	$\hat{e}(\Sigma d_{IDi}, U)$
Third	Signature (compound)	d_{IDi} Private	P_{pubi} Public	z Private	$h \Sigma d_{IDi} + z \Sigma P_{pubi}$
	Verification (compound)	Q_{IDi} Public	P_{pubi}, U Public	U Public	$\Pi \hat{e}(P_{pubi}, h Q_{IDi} + U)$
Fourth	Signature "e"	Q_{IDi} in d_{IDi}	d_{IDi} Private s_i in d_{IDi}	k Private	$\hat{e}(\Sigma d_{IDi}, P)$
	Verification "e"	Q_{IDi} Public	P_{pubi} Public	h, S Public	$\Pi \hat{e}(Q_{IDi}, P_{pubi})$

Figure 3